

Case 3382

Mystus Scopoli, 1777 (Osteichthyes, Siluriformes): proposed conservation of usage by designation of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840 as the type species

Maurice Kottelat

Route de la Baroche 12, Case Postale 57, CH-2952 Cornol, Switzerland
(e-mail: mkottelat@dplanet.ch)

Heok Hee Ng

Fish Division, Museum of Zoology, University of Michigan, 1109 Geddes Avenue, Ann Arbor, Michigan 48109–1079, U.S.A. Current address: Raffles Museum of Biodiversity Research, Department of Biological Sciences, 6 Science Drive 2 #03–01, National University of Singapore, Singapore 117546 (e-mail: dbsnhh@nus.edu.sg)

Abstract. The purpose of this application, under Article 70.2 of the Code, is to conserve the current usage of the names *Mystus* Scopoli, 1777 and *Platydoras* Bleeker, 1862 for two genera of bagrid and doradid catfishes respectively. The names are currently in use, but their current usage is threatened by the discovery of an overlooked fixation of the type species of *Mystus*. The suppression of this fixation is sought and it is proposed that *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840 should be accepted as the type species of *Mystus* as designated by Jordan & Evermann (1907).

Keywords. Nomenclature; taxonomy; BAGRIDAE; DORADIDAE; *Mystus*; *Platydoras*; *Mystus halepensis*; *Platydoras costatus*; catfishes.

1. The nominal genus *Mystus* Scopoli, 1777 (p. 451) was originally described without any validly named species. The name has been most frequently used for a genus in the Old World catfish family BAGRIDAE. *Mystus* currently includes 32 valid species, but at some time included up to 62 valid species, now distributed in the genera *Mystus* and *Hemibagrus* Bleeker, 1862 (p. 9) (Ng, 2003, p. 441).

2. The first inclusion of a validly named species in *Mystus* is by Swainson (1838, p. 340), who included in it ‘*Cataphractus costatus* of Bloch, 1794: pl. 376’ as the only included species. This makes it the type species of *Mystus* by subsequent monotypy (Article 69.3 of the Code). The ‘*Cataphractus costatus* of Bloch, 1794: pl. 376’ is *Silurus costatus* Linnaeus, 1758 (p. 306) (currently *Platydoras costatus*), a member of the neotropical family DORADIDAE.

3. Swainson’s designation of a type species has been overlooked since. Jordan & Evermann (1917, p. 21) designated *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840a (p. 413) as the type species of *Mystus*. This designation was often cited (e.g. by Roberts, 1994, p. 243; Eschmeyer, 1998, p. 2028). *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840 is currently considered a junior subjective synonym of *Silurus pelusius* Solander in Russell, 1794 (p. 210).

4. Some authors (see Whitley, 1936, p. 191) have also referred to a type species designation (because of first inclusion of 'silure alasias') by Bosc (1803, p. 325). However, that does not constitute a valid type species designation because Bosc's 'silure alasias' is neither an available name nor an incorrect spelling (Article 67.2.1 of the Code – Originally included nominal species) but a gallicised version of a misspelling of *Silurus clarias* Linnaeus, 1758. The 'silure alasias' of Bosc (1803) possibly refers to the species misidentified as *Silurus clarias* by Bloch, 1782 (p. 247, pl. 35); this has been redescribed as *Pimelodus blochii* Valenciennes in Cuvier & Valenciennes, 1840b (p. 188), a member of the neotropical family PIMELODIDAE.

5. Although *Platydoras* (type species *Silurus costatus* Linnaeus, 1758, by original designation) was described by Bleeker in 1862 (p. 5), it was regarded for a long time as a junior subjective synonym of *Doras* Lacépède (as La Cepède), 1803 until Eigenmann (1925, p. 315) resurrected it as a valid genus. Since then, it has been in continuous use.

6. *Mystus* Scopoli, 1777 has been in continuous and unambiguous use for the same genus in the BAGRIDAE since 1928.

7. Use of the valid type species *Silurus costatus* Linnaeus, 1758 for *Mystus* Scopoli, 1777 would result in changing the name of the South American catfishes from *Platydoras* to *Mystus* and the name of the 32 Asian species currently assigned to *Mystus* to either *Aspidobagrus* Bleeker, 1862 or *Hypselobagrus* Bleeker, 1862, two simultaneous junior subjective synonyms, which have almost never been used since their original proposal. Some species of *Mystus* are very common and the name appears in hundreds of works, inventories, surveys, fisheries statistics in South and Southeast Asia. *Platydoras* is also widely used in South America. The situation is compounded by the fact that *Platydoras costatus* is a species widely encountered in the aquarium trade and, as such, has been widely cited in both scientific and aquarium literature for 80 years (e.g. Ferraris, 1991; Moyer et al., 2004).

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all type species fixations for the nominal genus *Mystus* Scopoli, 1777 before that by Jordan & Evermann (1917) of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Mystus* Scopoli, 1777 (gender: masculine), type species *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840 by subsequent designation by Jordan & Evermann, 1917, as ruled in (1) above;
 - (b) *Platydoras* Bleeker, 1862 (gender: masculine), type species *Silurus costatus* Linnaeus, 1758 by original designation;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *pelusius* Solander in Russell, 1794, as published in the binomen *Silurus pelusius* (the valid name of *Bagrus halepensis* Valenciennes in Cuvier & Valenciennes, 1840, the type species of *Mystus* Scopoli, 1777);
 - (b) *costatus* Linnaeus, 1758, as published in the binomen *Silurus costatus* (specific name of the type species of *Platydoras* Bleeker, 1862).

References

Bleeker, P. 1862–63. *Atlas ichthyologique des Indes Orientales Néerlandaises, publié sous les auspices du Gouvernement colonial néerlandais. Tome II. Siluroïdes, Chacoïdes et Hétéro-branchoïdes.* 112 pp., pls. 49–101. Frédéric Muller, Amsterdam.

Bloch, M.E. 1782. *Oekonomische Naturgeschichte der Fische Deutschlands. 1. Theil.* 258 pp., pls. 1–37. Morino, Berlin.

Bloch, M.E. 1794. *Naturgeschichte der ausländischen Fische. 8. Theil. iv.* 174 pp., pls. 361–396. Morino, Berlin.

Bosc, L.A.G. 1803. Myste. P. 325 in: *Nouveau dictionnaire d'histoire naturelle, appliquée aux arts, principalement à l'agriculture et à l'économie rurale et domestique: par une Société de naturalistes et d'agriculteurs: avec des figures tirées des trois règnes de la nature*, vol. 15. 580 pp., pls. 23–36. Deterville, Paris.

Cuvier, G. & Valenciennes, A. 1840a. *Histoire Naturelle des Poissons. Tome Quartzième. Suite du livre seizième. Labroïdes. Livre dix-septième. Des Malacoptérygiens.* xxii, 464 pp., pls. 389–420. Pitois-Levrault, Paris.

Cuvier, G. & Valenciennes, A. 1840b. *Histoire Naturelle des Poissons. Tome Quinzième. Suite du livre dix-septième. Siluroïdes.* xxxi, 540 pp., pls. 421–455. Pitois, Paris.

Eigenmann, C.H. 1925. A review of the Doradidae, a family of South American Nematognathi, or catfishes. *Transactions of the American Philosophical Society (New Series)*, **22**: 280–365.

Eschmeyer, W.N., Ferraris, C.J., Hoang, M.D. & Long, D.J. 1898. Part I. Species of fishes. Pp. 25–1820 in Eschmeyer, W.N. (Ed.), *Catalog of Fishes*. California Academy of Sciences, San Francisco.

Ferraris, C.J. 1991. *Catfish in the Aquarium*. 199 pp. Tetra Press, Morris Plains, NJ.

Jordan, D.S. & Evermann, B.W. 1917. The genera of fishes, from Linnaeus to Cuvier, 1758–1833, seventy-five years, with the accepted type of each. A contribution to the stability of scientific nomenclature. *Leland Stanford Jr. University Publications, University Series*, **27**: 1–161.

La Cepède, [E.] 1803. *Histoire naturelle des poissons*, vol. 5. lxviii, 803 pp., pls. 1–21. Didot, Paris.

Linnaeus, C. 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.

Moyer, G.R., Burr, B.M. & Krajewski, C. 2004. Phylogenetic relationships of thorny catfishes (Siluriformes: Doradidae) inferred from molecular and morphological data. *Zoological Journal of the Linnean Society of London*, **140**: 551–575.

Ng, H.H. 2003. Phylogeny and systematics of Bagridae. Pp. 439–463 in Kapoor, B.G., Arratia, G., Chardon, M. & Diogo, R. (Eds.), *Catfishes*, vol. 1. Science Publishers, Enfield.

Roberts, T.R. 1994. Systematic revision of Asian bagrid catfishes of the genus *Mystus* sensu stricto, with a new species from Thailand and Cambodia. *Ichthyological Exploration of Freshwaters*, **5**: 241–256.

Russell, A. 1794. *Natural History of Aleppo. Containing a Description of the City, and the Principal Natural Productions in its Neighbourhood. Together with an Account of the Climate, Inhabitants, and Diseases; Particularly of the Plague. Second Edition, revised by P. Russell*, vol. 2. vii, 430 pp., xxxiv, 26 pp., index; pls. 1–16. G.G. & J. Robinson, London.

Scopoli, J.A. 1777. *Introductio ad historiam naturalem, sistens genera lapidum, plantarum et animalium hactenus detecta, caracteribus essentialibus donata, in tribus divisa, subinde ad leges naturae*. x, 506 pp. Wolfgang Gerle, Prague.

Swainson, W. 1838. *The Natural History and Classification of Fishes, Amphibians, & Reptiles, or Monocardian Animals*, vol. 1. vi, 368 pp. Longman, Brown, Green & Longmans, London.

Whitley, G.P. 1936. Ichthyological genotypes: some supplementary remarks. *Australian Zoologist*, **8**: 189–192.

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